

SEMINARS

SEMINAIRES

Monday 8 August

PPE SEMINAR

at 16.30 hrs – Auditorium

Rapidity gaps between jets at D0

by Andrew BRANDT / FNAL

Results are presented from a study of events with a rapidity gap between jets. The D0 detector was used to examine these events produced by the Fermilab Tevatron $p\bar{p}$ collider at $\sqrt{s} = 1.8$ TeV. The fraction of events with an observed rapidity gap between the two highest transverse energy jets is measured as a function of the pseudorapidity separation between the jet edges. An upper limit at the 95% confidence level of 1.1% is placed on the fraction of events with no particles between the jets. Preliminary results from an analysis of multiplicity between the jets show a significant excess of events with low multiplicity which is qualitatively consistent with the exchange of a strongly interacting color singlet.

Wednesday 10 August

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Character expansion: new tool for solving matrix models

by Vladimir KAZAKOV / ENS Paris

Character expansion appears to be a new and powerful tool to calculate various $N \times N$ matrix integrals in the large N limit. As a new example, the heat kernel on the unitary group will be reduced to a simple functional equation and recently found phase transition in continuous QCD₂ is re-analysed on this example. Another interesting example of an (in principle) solvable model is pure gravity with (curvature)² term. A possibility to apply these methods to the principal chiral field is discussed.

Thursday 11 August

CERN COLLOQUIUM

at 16.30 hrs – Auditorium*

Direct observations of microwave background anisotropy

by A.N. LASENBY / Cavendish Laboratory, Cambridge

The period since the first detection of statistical anisotropy by the COBE satellite has been an extremely fertile one for microwave background research, and has seen both the first detection of individual features (by the Tenerife experiment) and the extension to smaller angular scales (by the MAX and now CAT experiments). The talk will attempt to give a summary of these new experimental results together with a sketch of the theoretical context in which they do (or do not) fit.

* Tea & coffee will be served at 16.00 hrs.

Friday 12 August

MEETING ON PARTICLE PHYSICS PHENOMENOLOGY

at 14.00 hrs – TH Conference Room

Is the top quark really heavier than the W boson?

by George Wei-Shu HOU / National Taiwan Univ., Taipei, Taiwan

Scalar induced top decays may drastically suppress $B(t \rightarrow l\nu + jet)$ and still hide the top below M_W . The Tevatron experiments should enlarge the scope and study the m_t - $B(t \rightarrow l\nu j)$ plane, as well as signatures for specific models. Without ruling out these possibilities, top quark and toponium physics could still turn up at LEP-II.